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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/001,354	10/30/2001	Richard F. Lyon	FOV-056	1358

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EXAMINER
HARRINGTON, ALICIA M

ART UNIT	PAPER NUMBER
2873	

DATE MAILED: 08/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/001,354	Applicant(s) LYON ET AL.	
	Examiner Alicia M Harrington	Art Unit 2873	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 March 2003* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4-7,14,15,17,19 and 20* is/are rejected.

7)☒ Claim(s) *3,8-13,16,18 and 21* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *30 October 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Allowable Subject Matter

1. Prosecution on the merits of this application is reopened on claims 1,2,4-7,14,15,17,19 and 20 are considered unpatentable for the reasons indicated below:

The following rejection based on Ogata et al (US 5,721,994) in view of Kitagishi (US 5,140,462) teaches the claimed invention.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1,2,4,5,14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ogata et al (US 5,721,994) in view of Kitagishi (US 5,140,462).

Regarding claim 1, Ogata discloses a camera comprising correcting optics (13; see figure 1) disposed between a prism and an objective lens of a camera for compensating for spherical and coma aberrations (see col. 5 lines 50-55). Ogata discloses a single unit element and fails to specifically disclose at least two lenses makes up the correction unit.

In the same field of endeavor, Kitagishi discloses a camera including corrector optics (II; see col. 5,lines 10-19 and col. 9,lines 30-35) for correcting aberrations comprising two lenses (see figure 1). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ogata, to provide at least two lens elements for correcting aberrations, as taught by Kitagishi, since it is well known camera lens system corrector design

and provides a correction function for common aberrations that occur in camera imaging systems.

Regarding claim 2, Ogata, as discussed above, provides for a single unit element. Kitagishi teaches a corrector optics comprising at least two lenses (II, see figure 1). Kitagishi further teaches the lenses comprise a positive power lens and negative power lens (see col. 13, lines 65-67;col. 14,lines 1-2 and col. 15, lines 5-15) with a convex side of a lens facing toward the object side. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ogata to include a corrector optics with a positive and negative lens where a convex side of the positive lens is being disposed toward the objective lens as claimed, as clearly suggested by Kitagishi, since the prior art teaches a positive and negative lens arrangement corrects for aberrations in cameras.

Regarding claims 4 and 14,Ogata discloses a camera comprising a prism being disposed between the objective lens and an image plane where a prism (13a) is generating aberration, and correcting optics (13; see figure 1) disposed between a prism and an objective lens of a camera for compensating for spherical and coma aberrations (see col. 5 lines 50-55). Ogata discloses a single unit element and fails to specifically disclose at least two lenses makes up the correction unit.

In the same field of endeavor, Kitagishi discloses a camera including corrector optics (II; see col. 5,lines 10-19 and col. 9,lines 30-35) for correcting aberrations comprising two lenses (see figure 1). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ogata, to provide at least two lens elements for correcting aberrations, as taught by Kitagishi, since it is well known camera lens system corrector design

and provides a correction function for common aberrations that occur in camera imaging systems.

Regarding claims 5 and 15, Ogata, as discussed above, provides for a single unit element. Kitagishi teaches a corrector optics comprising at least two lenses (II, see figure 1). Kitagishi further teaches the lenses comprise positive power lens and negative power lens (see col. 13, lines 65-67;col. 14,lines 1-2 and col. 15, lines 5-15) with a convex side of a lens facing toward the object side. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ogata to include a corrector optics with a positive and negative lens where a convex side of the positive lens is being disposed toward the objective lens as claimed, as clearly suggested by Kitagishi, since the prior art teaches a positive and negative lens arrangement corrects for aberrations in cameras.

4. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ogata In view of Kitagishi, further in view of Kono et al (US 6,157,781).

Regarding claims 6-7, Ogata and Kitagishi fail to specifically disclose the camera includes infrared rejecting filters. However, it is well known in the art to include this element, as taught by Kono.

In the same field of endeavor, Kono disclose a camera with a rear/compensator lens attachment that is inserted between the objective lens and prism (see figure 4). This compensator lens comprises infrared rejection filters (see col. 3, lines 48-51 and col. 6, lines 20-25). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ogata and Kitagishi, to include infrared rejecting filter, as taught by Kono, to cut off the infrared component in the image when detecting a visible image.

5. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ogata In view of Kitagishi, further in view of Inabata (US 5,034,763).

Regarding claim 17, Ogata and Kitagishi fail to specifically disclose an embodiment where the prism is viewfinder beam splitter.

In the same field of endeavor, Inabata discloses a camera system where the prism is viewfinder beam splitter prism with a positive and negative lens (L1, L2) as corrector optics for correcting (col. 8,lines 1-10; see col. 9, lines 42-47) aberrations. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ogata and Kitagishi, as taught by Inabata, to provide a system for correcting aberration for improving image quality in a view finder system.

6. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ogata et al (US 5,721,994).

Regarding claim 19, Regarding claim 1, Ogata discloses a camera comprising correcting optics (13; see figure 1) disposed between a prism and an objective lens of a camera for compensating for spherical and coma aberrations (see col. 5 lines 50-55). Ogata discloses a single unit element and fails to specifically disclose modular corrector optics (separable optics) with a front and rear mount. Although, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ogata, since it has been held that constructing a formerly integral structure in various elements involves only routine skill in the art. Nerwin v. Erlichman, 168 USPQ 177,179.

7. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ogata et al (US 5,721,994), as applied above in claim 19, further in view of Kitagishi (US 5,140,462).

Regarding claim 20, Ogata discloses a single unit element and fails to specifically disclose at least two lenses makes up the correction unit.

In the same field of endeavor, Kitagishi discloses a camera including corrector optics (II; see col. 5,lines 10-19 and col. 9,lines 30-35) for correcting aberrations comprising two lenses (see figure 1). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ogata, to provide at least two lens elements for correcting aberrations, as taught by Kitagishi, since it is well known camera lens system corrector design and provides a correction function for common aberrations that occur in camera imaging systems.

Allowable Subject Matter

8. Claims 3,8-13,16,18,21 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. Regarding claims 3, 13, 18 and 21, prior art taken either singularly or in combination fails to anticipate or fairly suggest the limitations of the dependent claims, in such manner that a rejection under 35 U.S.C 102 or 103 would be proper. The prior art fails to teach a combination of all the claimed features as presented in independent claims, which include the second index of refraction being higher than the first index of refraction and second Abbe number being lower than the first Abbe number as claimed.

Regarding claims 5 and 16, prior art taken either singularly or in combination fails to anticipate or fairly suggest the limitations of the dependent claims, in such manner that a

rejection under 35 U.S.C 102 or 103 would be proper. The prior art fails to teach a combination of all the claimed features as presented in independent claims, which include the system for use with a color separation prism as claimed.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia M Harrington whose telephone number is 703 308 9295. The examiner can normally be reached on Monday - Thursday 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps can be reached on 703 308 4883. The fax phone numbers for the organization where this application or proceeding is assigned are 703 308 7724 for regular communications and 703 308 7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308 0956.

Alicia M Harrington
Examiner
Art Unit 2873

AMH
July 21, 2003

Frank G. Font
Supervisory Patent Examiner
Technology Center 2800